

Serial No. 10/577,670

In the Claims:

1-11. (Cancelled)

12. (CURRENTLY AMENDED) A method for operating a radio communication system with a radio access point and a plurality of radio stations~~[[,]]~~ including a terminal radio station located outside of direct radio transmission range of the radio access point, the radio access point requiring ~~which requires~~ path information about a path formed of at least one further radio station of the plurality of radio stations usable for message transfer between the radio access point and the terminal radio station, said method comprising:

learning, at the terminal radio station, about a requirement for the path information that was initiated at the radio access point; and

initiating at the terminal radio station a method for determining ~~the a~~ path between the terminal radio station and the radio access point to fulfill the requirement initiated by the radio access point.

13. (Previously Presented) The method as claimed in claim 12,

wherein the radio communication system includes a base station located inside the direct radio transmission range of the radio access point and the terminal radio station is located within a radio coverage area of the base station,

wherein said method further comprises notifying the base station by the radio access point about the requirement for the path information, and

wherein said learning by the terminal radio station about the requirement for the path information is a result of a notification by the base station.

14. (Previously Presented) The method as claimed in claim 12, wherein a known path between the terminal radio station and the radio access point formed of at least one further radio station is known to the terminal radio station and the radio access point, enabling data to be transferred from the terminal radio station to the radio access point and from the radio access point to the terminal radio station via the path, and

wherein said method further comprises

receiving, at the radio access point, failure information about failure of the known path from a radio station of the path;

learning at the terminal radio station about the failure of the known path after the radio access point learns about the failure; and

Serial No. 10/577,670

initiating, at the terminal radio station, a method for determining a new path between the terminal radio station and the radio access point.

15. (Previously Presented) The method as claimed in claim 14, wherein said learning about the failure of the known path at the radio access point results from information received in response to sending data from the radio access point to the terminal radio station.

16. (Previously Presented) The method as claimed in claim 14, wherein said method further comprises sending test data for the radio access point from the terminal radio station to determine whether the failure exists in the known path.

17. (Previously Presented) The method as claimed in claim 16, wherein said sending of the test data takes place at regular time intervals.

18. (Previously Presented) The method as claimed in claim 16, wherein said learning about the failure of the known path at the terminal radio station results from said sending of the test data to determine whether the failure exists in the known path.

19. (Previously Presented) The method as claimed in claim 16, wherein said sending of the test data by the terminal radio station to determine whether the failure exists in the known path results from at least one notification sent as a result of a preceding determination of the known path.

20. (CURRENTLY AMENDED) A first radio station for a radio communication system, the radio communication system comprising a radio access point and at least one second radio station in addition to the first radio station~~further radio stations, the first radio station~~ comprising:

means for receiving a notification that the radio access point initiated a requirement for ~~requires~~ information about a path, the path formed of at least one of the second ~~further~~ radio stations ~~which that~~ can be used for a message transfer between the radio access point and said first radio station; and

means for initiating a method for determining a path between said first radio station and the radio access point following reception of the notification that the radio access point initiated the requirement for information.

Serial No. 10/577,670

21. (CURRENTLY AMENDED) A first radio station for a radio communication system, the radio communication system formed of a radio access point and at least one second radio station in addition to the first ~~further~~ radio ~~station~~stations, the first radio station comprising:

means for storing a path between said first radio station and the radio access point, where the path is formed of at least one of the ~~further~~second radio stations and enabling data to be transferred from said first radio station to the radio access point and from the radio access point to said first radio station via the path;

means for sending test data for the radio access point to determine whether a failure of the path exists;

means for receiving and processing failure information about presence of a failure of the stored path; and

means for initiating a method to determine a new path between said first radio station and the radio access point following reception of the failure information.

22. (CURRENTLY AMENDED) A computer readable medium storing instructions that when executed control at least one processor in a first radio station to perform a method comprising:

storing a path between the first radio station and the ~~a~~ radio access point, where the path ~~is formed of~~includes at least one ~~further~~second radio station and enabling data to be transferred from the first radio station to the radio access point and from the radio access point to the first radio station via the path;

sending test data for the radio access point to determine whether a failure of the path exists;

receiving and processing failure information about presence of a failure of the stored path; and

initiating a method to determine a new path between the first radio station and the radio access point following reception of the failure information.